2.2.3.14 Central Sand Hills Ecological Landscape

Figure 2-42. Central Sand Hills Ecological Landscape.

General Description

The Central Sand Hills Ecological Landscape is located in central Wisconsin (Figure 2-42) at the eastern edge of what was once Glacial Lake Wisconsin. The landforms in this Ecological Landscape are a series of glacial moraines that were later partially covered by glacial outwash. The area is characterized by a mixture of farmland, woodlots, wetlands, small kettle lakes, and cold water streams, all on sandy soils. The mosiac of glacial moraine and pitted outwash throughout this Ecological Landscape has given rise to extensive wetlands in the outwash areas, and the headwaters of coldwater streams that originate in glacial moraines. The growing season is long enough for agriculture but the sandy soils limit agricultural productivity somewhat.

Vegetation

Historic upland vegetation consisted of oak-forest, oak savanna, and tallgrass prairie. Fens were common in this Ecological Landscape and occurred along with wet-mesic prairie, wet prairie, and rare coastal plain marshes.

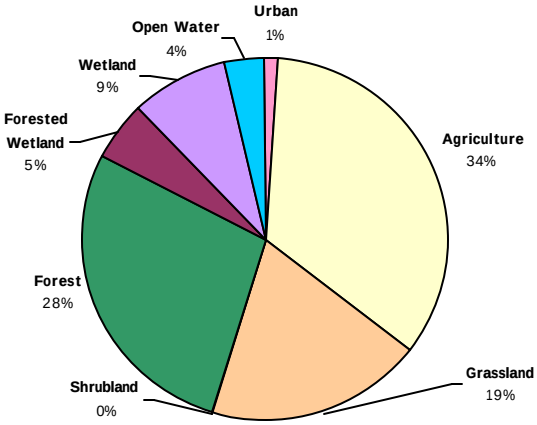

Figure 2-43. Current land cover in the Central Sand Hills Ecological Landscape.

Current vegetation is composed of more than one-third agricultural crops, and almost 20% grasslands with smaller amounts of open wetland, open water, shrubs, barren, and urban areas (Figure 2-43). The major forested type is oak-hickory, with smaller amounts of white-red-jack pine, maple-basswood, lowland hardwoods, aspen-birch, and spruce-fir.

Hydrologic Features

There are numerous small kettle lakes and ponds associated with the glacial outwash. There are many softwater lakes with a firm bottom that are being developed for recreational uses. Although the lakes and rivers of the Ecological Landscape are fairly clean, it has the poorest groundwater rating of all the Ecological Landscapes according to Wisconsin DNR.

Land Use

The total land area for the Central Sand Hills Ecological Landscape is approximately 1.4 million acres, of which 28% is classified as timberland. Only about 4% of the Ecological Landscape is public land (Figure 2-44).

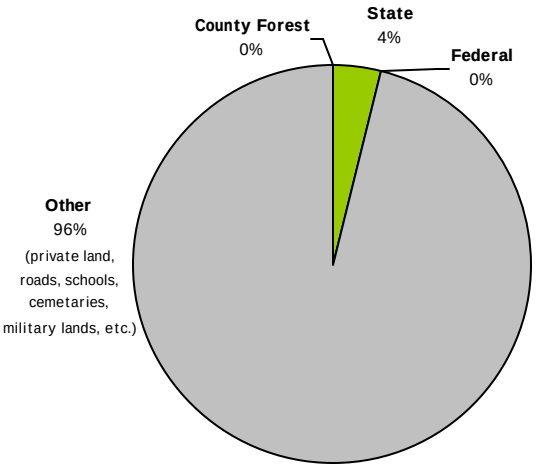

Figure 2-44. Public land ownership in the Central Sand Hills Ecological Landscape.

Socioeconomics

Socioeconomic data are summarized based on county-level approximations of the Ecological Landscape (referred to as a "region"). Economic data are available only on a political unit basis with counties as the smallest unit. The counties included in this socioeconomic region are Columbia, Green Lake, Marquette, Portage, and Waushara ("Central Sand Hills Region").

Although soils are predominantly dry and sandy, the counties of the Central Sand Hills Region are primarily agricultural. Agriculture is successful in this sandy area with use of irrigation mostly in the production of potatoes, sweet corn, peas, and snap beans but there is a considerable amount of marginal and idle agricultural land. There are no state parks, recreation areas, state forests, or federal lands in the Ecological Landscape, though there are 24 fishery and wildlife areas.

The Central Sand Hills Region is nearly average for most socioeconomic indicators. The population density of the region (54 persons/mi^2) is slightly more than half that of the state as a whole (96 persons/mi^2). The region has shown an above average population growth rate since 1970, especially for the elderly (over 65 years old) population. The number of nonwhites, especially Native Americans is quite low. Although average wage and per capita income are well below the state average, these indicators are intermediate compared to other regions. In addition, the rates of poverty and unemployment are well below average when compared to the other regions. The agricultural and government sectors have a more influential role in the number of employees in the region, whereas manufacturing and the service sector are less important than elsewhere in the state.

Management Opportunities

- This Ecological Landscape has many opportunities for the restoration and preservation of natural communities.
- It is the best place in the state to manage for the coastal plain marsh community type and associated rare species.
- There are opportunities for using prescribed fire to restore oak savanna that provides important Karner blue butterfly habitat.
- It is the best place in the state to maintain and restore the Central Sands Pine-Oak forest community type.
- There are opportunities to preserve and manage for extensive emergent marsh, southern sedge meadows, and calcareous fens (e.g., White River Marsh, Germania and Comstock Marshes, and the Fox River corridor) as well as wet-mesic prairie (e.g., Puchyan Marsh) and relict tamarack swamps.
- There are many unique aquatic features in this Ecological Landscape such as the preservation and management of cold water streams, many of which are important to aquatic invertebrates and cold water fishes.
- Important places in this Ecological Landscape to consider for management are the Lower Baraboo River, Gumz Marsh, the Leopold Reserve, Pine Island Wildlife Area, and the White, Puchyan, and Fox River systems.

Natural Communities

The following table (Table 2-16) lists the natural communities occurring in the Central Sand Hills arranged by the level of opportunity to sustain and manage the community type in this Ecological Landscape. For further explanation of natural communities and opportunities to sustain them, see Section 3.3.

Table 2-12. Natural communities occurring in the Central Sand Hills arranged by the level of opportunity to sustain and manage the natural community type in this Ecological Landscape.

Major Opportunity	Important Opportunity	Present
Northern Wet Forest	Northern Hardwood Swamp	Northern Dry Forest
Central Sands Pine – Oak Forest	Floodplain Forest	Northern Dry-Mesic Forest
Southern Dry Forest	Southern Dry-Mesic Forest	Northern Mesic Forest
Emergent Aquatic	Southern Tamarack Swamp	Northern Wet-Mesic Forest
Calcareous Fen (Southern)	Oak Barrens	Southern Mesic Forest
Coastal Plain Marsh	Pine Barrens	Cedar Glade
Shrub Carr	Dry Prairie	Oak Opening
Southern Sedge Meadow	Sand Prairie	Oak Woodland
Wet-Mesic Prairie	Submergent Aquatic	Dry-Mesic Prairie
	Alder Thicket	Mesic Prairie
	Bog Relict	Emergent Aquatic-Wild Rice
	Northern Sedge Meadow	Ephemeral Pond
	Open Bog (4)	Dry Cliff
	Wet Prairie	
	Bedrock Glade	
	Moist Cliff	